

## **REMARKS/ARGUMENTS**

### **Summary**

Claims 1-35 are pending in the application. Claims 1, 3, 10, 11, 14, 15, 17-21 and 23 have been amended. Claims 5 and 33-35 have been cancelled. Claims 1-4 and 6-32 are pending in the application. The amendments to the claims are supported in the specification. No new matter has been added.

### ***Double Patenting***

Claim 23 conflicts with claim 24 of co-pending patent application number 10/550,362. Applicants submit herewith a Terminal Disclaimer which shows the conflicting application is commonly owned with this application thus overcoming this rejection.

Claim 1 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 16 of co-pending patent application number 10/550,362. Applicants submit herewith a Terminal Disclaimer thus overcoming this rejection.

### **I. Objection to Claims**

#### ***A. Claims 3, 10, 11, 17 and 19***

The Examiner has objected to claims 3, 10, 11, 17 and 19 under 37 C.F.R. §1.75(a) as failing to particularly point out and distinctly claim the subject matter

which Applicants regards as his invention or discovery. Applicants have amended claims 3, 10, 11, 17 and 19 based on the Examiner's comments, which overcomes the Examiner's objections. Thus, Applicants respectfully request the Examiner withdraw the objections to claims 3, 10, 11, 17 and 19.

*B. Claims 18 and 19*

The Examiner has objected to claims 18 and 19 under 37 C.F.R. §1.75(a) as failing to particularly point out and distinctly claim the subject matter which Applicants regards as his invention or discovery. Applicants have amended claims 18 and 19 based on the Examiner's comments, which overcomes the Examiner's objections. Thus, Applicants respectfully request the Examiner withdraw the objections to claims 18 and 19.

**II. Rejection of Claims**

**35 U.S.C. § 101**

The Examiner has rejected claim 35 under 35 U.S.C. §101 because "the claimed invention is directed to non-statutory subject matter as follows. Claim 35 defines a 'data carrier storing the computer software of claim 34', with descriptive material." Applicants have cancelled claim 35. Thus, Applicants respectfully request the Examiner withdraw this rejection.

The Examiner has rejected claim 34 under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter as follows. Claim 34

defines computer software arranged to perform the method of claim 1, embodying functional descriptive. Applicants have cancelled claim 34. Thus, Applicants respectfully request the Examiner withdraw this rejection.

### **35 U.S.C. § 102**

#### *A. Claims 1-6, 8-13, 21-23 and 33-35*

In the Office action, the Examiner rejected claims 1-6, 8-13, 21-23 and 33-35 under 35 U.S.C. §102(b) as anticipated by Lee et al. (U.S. Patent No. 5,933,519). Applicants have amended claim 1 and cancelled claims 5 and 33-35. Applicants respectfully traverse this rejection.

Amended claim 1 recites, “classifying a first set of cells by a user selected classification method, the process of classifying the first set of cells including classifying said at least one selected first cell into a subpopulation by optimizing dimensionality of feature space and storing first identifying data indicating the subpopulation into which said at least one selected first cell has been classified; deriving cell classifying data for use in classifying a second set cells into subpopulations from said first parameter set and said first identifying data, and classifying a second set of cells into subpopulations on the basis of one or more measurements based on at least one of the plurality of parameters sets weighted in relation to the plurality of parameters sets.”

This amended claim has a structure that allows the user selected classification method to weigh anyone of the plurality of parameters of the first set of cells in order

to classify the first set of cells. By being able to classify the cells based on the weight associated with any one of the plurality of parameters of the first cells there is a minimization of classification error that may be caused by variation in the value of unweighted measurements. (Specification, page 43, lines 11-22).

With respect to Lee et al., the invention “detects areas of interest of low magnification, locating possible abnormal cells or other cells of interest using image processing and statistical pattern recognition techniques. Next, at high magnification, the areas identified at low magnification are re-examined.” (Abstract). Also, Lee et al. states that “Because each FOV processor 568 has access only to information from one image at a time, and because computer 540 has access to information from the entire slide, the host processor must complete classification for detected objects that require multi-image features.” (Column 6, lines 15-20).

However, Lee et al. does not anticipate, suggest or disclose the elements of the claim 1 structure that allows the user selected classification method to weigh anyone of the plurality of parameters of the first set of cells in order to classify the first set of cells. By being able to classify the cells based on the weight associated with any one of the plurality of parameters of the first cells there is a minimization of classification error that may be caused by variation in the value of unweighted measurements. In fact, Lee et al. discloses that “The invention provides a slide suitability score for biological specimen slides. The slide suitability score is one of six slide scores that are the results of processing slides on the automated cytology quality control system of the invention.” (Column 6, lines 52-57). Thus, Lee et al. is able to

produce a slide suitability score or a parameter for the first set of cells based on the results of the processing slides on the automated cytology quality control system of the invention, but it is not able to use the parameters for the first set of cells to determine which parameter would be weighted in order to classify the first set of cells. Therefore, the Lee et al. reference does not anticipate, suggest or disclose a structure that includes a user selected classification method to weigh anyone of the plurality of parameters of the first set of cells in order to classify the first set of cells, because Lee et al. uses the slidability score based on the processing slides to classify the cells but is not able to implement a further step of weighing the slidability score to classify the cells.

Accordingly, Applicants respectfully submit that independent claim 1 is allowable. Claims 2-4 and 6, 8-13 and 21-23, which depend from independent claim 1 is allowable because independent claim 1 is allowable. Applicants respectfully request that the rejection be withdrawn and claims 1-4 and 6, 8-13 and 21-23 as amended be allowed.

### **35 U.S.C. § 103**

#### *A. Claims 7, 14-20*

In the Office action, the Examiner rejected claims 7 and 14-20 under 35 U.S.C. §103(a) as being unpatentable over Lee et al. in combination with Dunlay et al. (U.S. Patent No. 7,117,098 B1). In light of the arguments discussed above,

Applicants submit that dependent claims 7 and 14-20 are patentable over the reference cited by the Examiner. Applicants respectfully traverse this rejection.

Since the independent claim 1 is patentable because they overcome the Examiner's rejections to Lee et al., dependent claims 7 and 14-20 also overcome the Examiner's rejections to Dunlay et al., since Dunlay et al. does not overcome the rejections to allowable base claim 1. Applicants request the rejection be withdrawn and claims 7 and 14-20 as amended be allowed.

*B. Claims 24- 28 (24-30)*

In the Office action, the Examiner rejected claims 24-28 under 35 U.S.C. §103(a) as being unpatentable over Lee et al. in combination with Dunlay et al. and Kuan et al. (U.S. Patent No. 5,757,954). The Examiner has provided rejections of claims 29 and 30 under this heading, but did not formally acknowledge that claims 29 and 30 were rejected in view of Lee et al., Dunlay et al. and Kuan et al., which Applicants believe the Examiner meant to do so Applicants also responded to these rejections. In light of the arguments discussed above, Applicants submit that dependent claims 24-30 are patentable over the reference cited by the Examiner. Applicants respectfully traverse this rejection.

Since the independent claim 1 is patentable because they overcome the Examiner's rejections to Lee et al., dependent claims 24-30 also overcome the Examiner's rejections to Dunlay et al., and Kuan et al. since Dunlay et al. and Kuan et

al. does not overcome the rejections to allowable base claim 1. Applicants request the rejection be withdrawn and claims 24-30 as amended be allowed.

*C. Claims 31, 32*

In the Office action, the Examiner rejected claims 31 and 32 under 35 U.S.C. §103(a) as being unpatentable over Lee et al. in combination with Dunlay et al. and further in view of Riley et al. (U.S. Patent No. 6,453,060 B1). In light of the arguments discussed above, Applicants submit that dependent claims 31 and 32 are patentable over the reference cited by the Examiner. Applicants respectfully traverse this rejection.

Since the independent claim 1 is patentable because they overcome the Examiner's rejections to Lee et al., dependent claims 31 and 32 also overcome the Examiner's rejections to Dunlay et al., and Rile et al. since Dunlay et al. and Riley et al. do not overcome the rejections to allowable base claim 1. Applicants request the rejection be withdrawn and claims 31 and 32 as amended be allowed.

**Conclusion**

Pending claims 1-4 and 6-32 are patentable. Therefore, in view of the above amendments, Applicants respectfully submit that this application is in condition for allowance and such action is earnestly requested. If for any reason, however, the Examiner feels that a telephone interview would be helpful in resolving any

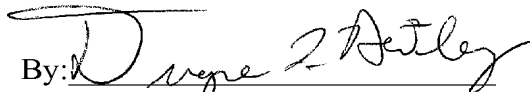
Appl. No. 10/817,213  
Amendment dated November 2, 2007  
Reply to Office action of May 2, 2007

remaining issues the Examiner is respectfully requested to contact Applicants'  
undersigned attorney.

Early and favorable consideration is respectfully requested.

Respectfully submitted,


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